No.

DOTC*MMDA*DPWH*NEDA*PNP-NCR*HUDCC*UP-NCTS*EMB Japan International Cooperation Agency (JICA)

METRO MANILA URBAN TRANSPORTATION INTEGRATION STUDY

APPENDICES

March 1999

MMUTIS STUDY TEAM

SSF JR

99-036 (3/16)

mmutis

APPENDICES

Table of Contents

I.	Pr	ofile of Proposed Projects	
	1.	Master Plan	I-1-1
		1.1. Roads	I-1-1
		1.2. Rail	I-1-56
		1.3. Traffic Management	
		1.4. Terminal	I-1-84
	2.	Medium Term Development Plan	I-2-1
II.	Te	chnical Notes/Material	
	1.	OD Matrix	II-1-1
	2.	Transportation Investment and Funding	II-2-1
		Long Term Financial Viability in the Manila Bus and	
		Jeepney Industry	II-3-1
	4.	Influence of Color Coding	II-4-1
	5.	Possible TDM Measures	II-5-1
	6.	Delay at Intersection	II-6-1
	7.	Comments on Manual Control of Signal	II-7-1
	8.	Parking Fee Based on Land Price	II-8-1
	9.	Analysis of LRT Line-1 Corridor	II-9-1
	10.	. MMURTRIP Recommendation Summary	II-10-1
	11.	. Vehicle Operating Cost Estimation for Urban Condition	II-11-1
	12.	. Economic Evaluation	II-12-1
	13.	Financial	II-13-1
		. Air Pollution Projects	
	15.	MMUTIS Database	II-15-1
II	Ι.	Draft Term of References	
	1.	Metro Manila Traffic Information Center	III-1-1
	2.	Metro Manila Signal System Rehabilitation Project	III-2-1
	3.	Traffic Sign and Pavement Marking Improvement Project	
	4.	Metro Manila Northern Road Development Project	
		(Northern and Central Package)	III-4-1
	5.	Metro Manila Northern Road Development Project	
		(Southern Package)	III-5-1

APPENDIX I

PROFILE OF THE PROPOSED PROJECTS

MASTER PLAN

1. MASTER PLAN

1.1 Roads

Project List (Primary Road)

			Туре	Implemen	tation Per	iod	Project Cos	t (P million)		
CODE	Name	Length	of	1999-	2005-	2010-	Capital Cos	t	Recurrent	Agency
		(km)	Work	2005	2010	2015	Total	Public	(P/Year)	
PC3	C-3 Missing Link	6.3	N	1			10,352	10,352	0.42	URPO
PC4	EDSA Missing Link	1.3	N	į			2,807	2,807	0.09	URPO
PC5	C-5 Missing Link	7.5	N				7,834	7,834	0.50	URPO
PB1	Buendia Ave. ext.	7.0	N				12,849	12,849	0.47	URPO
PR7	R-7 East ext.	6.0	N	1			9,752	9,752	0.40	URPO
PR4	R-4 East ext.	5.0	N	1			5,351	5,351	0.34	URPO
PS5E	C-6 East Section	39.0	N				11,528	11,528	2.61	Region IV-A
PS1	Talaba – Maragondon Road	19.9	N/I				4,415	4,415	1.27	Region IV-A
PS2	Gen.Trias - Indang Road	11.0	N/I	1			1,496	1,496	0.74	Region IV-A
PS3	Kawit – Mabatang Road	16.5	N				3,064	3,064	1.11	Region IV-A
PS4	South Central Road	37.0	N				19,416	19,416	2.48	Region IV-A
PS5S	Laguna de Bay Coastal Road	12.5	N				5,020	5,020	0.84	Region IV-A
PE1	Tanza-Muntinlupa Road	24.5	N				7,104	7,104	1.64	Region IV-A
PE2	Calibuyo-San Pedro Road	22.9	N	1			6,470	6,470	1.63	Region IV-A
PE3	Naic-Biñan Road	29.0	N/I	1			5,312	5,312	1.94	Region IV-A
PZ1	Talaba/Zapote Ring Road	2.5	N	1			835	835	0.17	Region IV-A
PN1	Caloon-Malolos Road	9.0	N	1			4,649	4,649	0.60	Region III
PN3	North Central Road	14.0	N				10,293	10,293	0.94	Region III
PN4	C5 North Ext.	18.0	N/I				13,521	13,521	1.29	Region III
PW1	C5 North Section	27.0	N				17,852	17,852	1.81	Region III
PW2	C6 North Section	24.0	N	1			11,376	11,376	1.61	Region III
PW3	Taliptip-San Jose Delmonte Rd	21.0	N	1			7,126	7,126	1.41	Region III
PA1	Airport Access	1.3	N/I				2,148	2,148	0.09	DPWH
GS1-5	Grade Separation, Central		N				2,400	2,400	0.21	URPO
GS6	Grade Separation, Southern		N				480	480	0.04	URPO
GS7,8	Grade Separetion, Eastern		N				960	960	0.09	URPO
TOTAL		360.9					184,408	184,408	24.74	

Project List (Secondary Road)

			Туре	Implemen	tation Per	riod	Project Cost (P million)			
CODE	Name	Length	of	1999-	2005-	2010-	Capital Cos	t	Recurrent	Agency
		(km)	Work	2005	2010	2015	Total	Public	(P/Year)	
SM1	Aurora Ave. ExtR10	2.5	N				1,727	1,727	0.17	URPO
SM2	A.M.Maceda & ExtAurora Blvd.	3.5	Ν				838	838	0.23	URPO
SM3	F. Martinez ExtOrtigas Ave.	1.7	N				523	523	0.11	URPO
SM4	SLE Ext.(Pres Quirino-J.P.Laurel)	1.8	N				2,709	2,709	0.12	URPO
SM5	Gilmore Ave. ExtRoosevelt	1.5	N				1,062	1,062	0.10	URPO
SM6	Victoneta Ave. ExtCongressional Ave.	2.5	Ν				865	865	0.17	URPO
SM7	Sampaguita Ave. West Ext.	7.5	Ν				2,375	2,375	0.50	URPO
SM8	Prenza-Kaybiga Rd.	4.5	Ν				882	882	0.30	URPO
SM9	Meycauayan-Deparo	7.0	Ν				1,878	1,878	0.47	URPO
SM10	C6 ExtJ.P.Rizal	0.3	N				92	92	0.02	URPO
SM11	Visayan Ave. North Ext.	2.7	Ν				855	855	0.18	URPO
SM12	Sampaguita Ave. East Ext.	8.8	Ν				3,309	3,309	0.59	URPO
SM13	Don M.Marcos Ave. ExtNorth Central Ro	4.5	N				2,116	2,116	0.30	URPO
SM14	Quirino Highway Novaliches Bypass	1.5	Ν				418	418	0.10	URPO
SM15	Regalado Ave. North Ext.	8.0	N				1,764	1,764	0.54	URPO
SM16	Marilao-Quirino Rd.(Prenza-Quirino Hwy)	9.0	Ν				2,407	2,407	0.60	URPO
SM17	Kalayaan Ave. Ext29th Ave.	1.0	Ν				725	725	0.07	URPO
SM18	New Marikina Rd.	3.2	Ν				1,242	1,242	0.21	URPO
SM19	Bayan-Bayanan Ave.	3.0	Ν				976	976	0.20	URPO
SM20	Col.B.Serrano Ave. ExtMarcos Hwy	2.0	Ν				1,438	1,438	0.13	URPO
SM21	Pasay Rd. Ext. (EDSA-Gen.Santos)	7.5	Ν				6,552	6,552	0.50	URPO

			Туре	Impleme	ntation Pe	riod	Project Co	st (P milli	on)	
CODE	Name	Length	of	1999-	2005-	2010-	Capital Co	st	Recurrent	Agency
		(km)	Work	2005	2010	2015	Total	Public	(P/Year)	
SM22	Jerusalem ExtDoña Soledad Ave.	0.8	N				190	190	0.05	URPO
SM23	New Las Piñas Rd.	10.5	N				4,354	4,354	0.70	URPO
SM24	Naga Rd. ExtA.Aguirre Ave.	0.8	N				221	221	0.05	URPO
SM25	Dr. J. Laurel & Ext.	1.3	N				359	359	0.09	URPO
SM26	Imus-Filinvest Rd.	4.0	N				956	956	0.27	URPO
SM27	France Ave. & Ext.	2.5	N				694	694	0.17	URPO
SM28	Tanza Alabang Rd.(Acacia AveNational Highway)	4.0	N/I				1,528	1,528	0.27	URPO
SN1	Panghulo Rd./J.P.Rizal/Baiwas	6.7	1		i		406	406	0.45	Region III
SN2	McArthur Highway	17.4	1				1,055	1,055	0.47	Region III
SN3	Marilao-Quirino Rd.(McArthur Hwy-Prenza)	6.0	1				486	486	0.40	Region III
SN4	Iba-Liciado Rd.	6.7	N				952	952	0.45	Region III
SN5	Kaybiga-Prenza Rd.	4.5	N				1,050	1,050	0.30	Region III
SN6	Bocaue-Tunkong Manga Rd.	7.1	1				434	434	1.21	Region III
SN10	Prenza-Magasawang Sapa Rd.	2.9	N/I				444	444	0.19	Region III
SN11	Camarin Road Ext.	3.7	N/I				435	435	0.25	Region III
SS1	Las Piñas-Talaba Diversion Road	1.0	1				84	84	0.07	Region IV-A
SS3	Highway 25/Gen. Trias National Rd.	2.7	1				1,682	1,682	0.18	Region IV-A
SS4	J.Felipe Blvd./Gen.P.Alvarez/Bacao Ave.	16.3	1				2,444	2,444	1.07	Region IV-A
SS6	Imus River East Road	3.5	1				401	401	0.23	Region IV-A
SS7	Moleno National Road	6.5	1				715	715	0.44	Region IV-A
SS8	Moleno National Road Ext.	11.0	1				804	804	0.74	Region IV-A
SS9	Acacia Ave. Ext.	10.5	N				2,502	2,502	0.70	Region IV-A
SS10	Tanza-Alabang Rd. (Tanza-Acacia Ave.)	17.0	N/I				3,913	3,913	1.14	Region IV-A
SS11	Sout Tanza - South Pag - Asa Road	13.4	N				3,946	3,946	1.07	Region IV-A
SS12	Salitran – Salawag Road.	5.0	1				392	392	0.34	Region IV-A
SS13	New Salawang Road.	3.5	N				1,474	1,474	0.23	Region IV-A
SS17	A.S. Soriano Highway	1.7	1				134	134		Region IV-A
SS18	Naic – Das Mariñas Road	16.7	N				5,263	5,263		Region IV-A
SS19	West Carmona Road	4.5	N				2,612	2,612	0.30	Region IV-A
TOTAL		276.1					74,677	74,677	18.69	

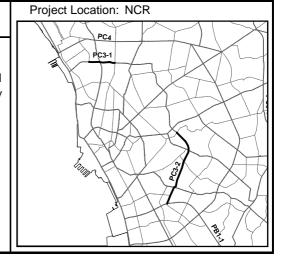
Project List (Expressway)

			Туре	Impleme	ntation Pe	riod	Project Co	st (P millio	on)	
CODE	Name	Length	of	1999-	2005-	2010-	Capital Co	st	Recurrent	Agency
		(km)	Work	2005	2010	2015	Total	Public	(P/Year)	
XMMS	Skyway	33.0	N				60,400	12,080	2.52	BOT-PMO
XR10C3	Port Access	7.5	N				12,732	2,546	0.50	BOT-PMO
XC5	C-5Express	13.4	N				22,748	4,550	0.90	BOT-PMO
XR4	R-4	12.5	N				21,220	4,244	0.90	BOT-PMO
XR7	R-7	8.3	N				14,000	2,800	0.90	BOT-PMO
XMC	Manila-Cavite	14.5	N				24,612	4,922	0.97	BOT-PMO
XNL	North Luzon Expressway	32.3	I				1,683	1,683	2.15	Region III
TOTAL		123.8					157,395	31,142	6.69	

Category C-3 Missing Links

Description:

This project will connect the missing links of C-3 in Caloocan and Mandaluyong to complete the existing C-3 corridor. It will greatly contribute to relieving the traffic congestion caused by these missing links, as well as to easing too much burden on EDSA.



(Code	PC3-1	PC3-2	
ltem		Mabini-Rizal	N. Domingo- Kamagong	
		0.8 km	5.5 km	
Αį	gency	DPWH URPO	DPWH URPO	
D	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
Турс	Status	DPWH Plan	DPWH Plan	
F : ::	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
rtoda	Pavement			
D 1.1	Land Use	Housing	Housing	
Roadside Condition	Density	High	Hgh	
Condition	Squatter	Significant	Significant	
Environmer	ntal Constraints	Major relocation necessary	Major relocation necessary	
ROW	Area (m²)	27,200	187,000	
Acquisition	Difficulty	Very difficult	Very difficult	
	ROW	122.4	2,393.6	
Project Cost	Compensation	272.0	3,740.0	
(PHPmil)	Construction	120.0	3,704.0 1)	
,	Total	514.4	9,837.6	
Technical Issues for Construction		Insignificant	Insignificant	
Re	marks		1) including 3 major bridges	

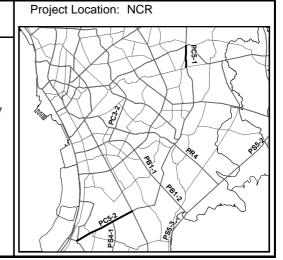
Category	EDSA Missing	Project LocationNCR
Primary	256/ \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
Description	•	PW1-2
This project	t will connect the missing link of EDSA	PW1-3
	ighway and R-10 Extension. The construction	h guit
_	g link will be indispensable to meet the	
demand of	traffic on	
		PC4
		PC3-1

C	Code	PC4		
Item		MacArthur Hwy- 10 Extension 1.3 km		
Α.	gency	DPWH URPO		
7.5	Standard	Primary (12		
Project	Type of Work	• `		
Туре	Status	DPWH Plan		
	Classification	National Road		
Existing Road	ROW (m)	10.0		
Noau	Pavement	Concrete		
D lette	Land Use	Commercial		
Roadside Condition	Density	High		
	Squatter	Significant		
Environme	ental	Major relocation necessary		
ROW	Area (m²)	53,300		
Acquisition	Difficulty	Most difficult		
5	ROW	346.5		
Project Cost	Compensatio	1 2,132.0		
(PHPmil)	Construction	328.0		
	Total	2,806.5		
Technical Issues for Construction		Insignificant		
Remarks				

Category	C-5 Missing Links
Primary	C-5 Wilssing Links

Description:

This project will connect the missing links of C-5 at Katipunan and SLE-Roxas sections to complete the existing C-5 corridor. This construction will greatly contribute in relieving the traffic congestion caused by these missing links, as well as easing the heavy burden on EDSA.

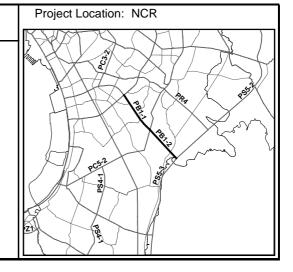


C	ode	PC5-1	PC5-2	
	tem	P. Tuazon-B. Serrano	SLE-Roxas Blvd.	
		1.1 km	6.4 km	
Αį	gency	DPWH URPO	DPWH URPO	
5	Standard	Primary (6+4 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
Турс	Status	DPWH Plan	DPWH Plan	
.	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
rtodd	Pavement			
5	Land Use	Housing	Housing	
Roadside Condition	Density	High	High	
Condition	Squatter	Significant	Significant	
Environmen	tal Constraints	Major relocation necessary	Major relocation necessary	
ROW	Area (m²)	56,100	217,600	
Acquisition	Difficulty	Very difficult	Very difficult	
	ROW	443.2	565.8	
Project Cost	Compensation	561.0	2,176.0	
(PHPmil)	Construction	1,208.0 1)	2,880.0 2)	
,	Total	2,212.2	5,621.8	
Technical Issues for Construction		Hilly topography	Insignificant	
Remarks		1) including 1 major bridge	2) including 2 major bridges	

Category	Buendia Avenie Extension
Primary	Duelidia Averlie Exterision

Description:

This road will connect Buendia Avenue, which currently terminates on EDSA, with C-6 to serve the heavy traffic demand in Makati. It will function as a major radial corridor which is absolutely missing in this area.



C	Code	PB1-1	PB1-2	
ltem		EDSA- C-5	C-5 - C-6	
		4.0 km	3.0 km	
Αg	gency	DPWH URPO	DPWH URPO	
D : .	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
1,750	Status	MMUTIS proposal	MMUTIS proposal	
Foriation or	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
	Pavement			
Dandaida	Land Use	Housing	Housing	
Roadside Condition	Density	High	Medium	
	Squatter	None	Minimal	
Environmen	tal Constraints	Major relocation necessary	Relocation necessary	
ROW	Area (m²)	136,000	102,000	
Acquisition	Difficulty	Most difficult	Difficult	
	ROW	3,672.0	255.0	
Project Cost	Compensation	5,440.0	510.0	
(PHPmil)	Construction	2,040.0 1)	932.0 2)	
,	Total	11,152.0	1,697.0	
Technical Issues for Construction		Insignificant	Insignificant	
Re	marks	1) including 1 major bridge and 1 minor bridge	2) including 1 minor bridge	

Category Primary	R-7 East Extension	Project Location: NCR
Description: This road will follow the gri includes a ne	Il connect Diliman (Quezon Avenue) with PS5 to id pattern development in the east suburb. It ew bridge over Marikina River to enhance the ity over the river.	PW1-3 PW1-4 PS5-1 PS5-1 PS5-1 PC5-1 PC5-1

	Code	PR7		
ı	tem	Diliman-San Mateo		
		6.0 km		
Αį	gency	DPWH URPO		
Droject	Standard	Primary (6+4 lanes)		
Project Type	Type of Work	New		
. , , , ,	Status	MMUTIS proposal		
E tatte	Classification			
Existing Road	ROW (m)	N.A.		
rtoda	Pavement			
	Land Use	Housing		
Roadside Condition	Density	Medium		
Condition	Squatter	Minimal		
Environmer	ntal Constraints	Relocation necessary		
ROW	Area (m²)	306,000		
Acquisition	Difficulty	Partly difficult		
	ROW	4,590.0		
Project Cost	Compensation	918.0		
(PHPmil)	Construction	4,244.0 1)		
,	Total	9,752.0		
Technical Issues for Construction		Partly hilly topography		
Remarks		1) including 2 major bridges and 2 minor bridges		

Category Primary	R-4 East Extension	Project Location: NCR
Description: This road wil to serve betv	I be an extension of the existing J.P. Rizal Avenue veen C-5 and C-6. It will work as a major radial h missing in this	

C	Code	PR4		
ı	tem	C-5 - C-6		
		5.0 km		
Αç	gency	DPWH URPO		
Duningt	Standard	Primary (6+4 lanes)		
Project Type	Type of Work	New		
1,700	Status	MMUTIS proposal		
Estation of	Classification			
Existing Road	ROW (m)	N.A.		
rtoda	Pavement			
D 1.1	Land Use	Housing		
Roadside Condition	Density	High		
Condition	Squatter	Significant		
Environmer	ital Constraints	Relocation necessary		
ROW	Area (m²)	255,000		
Acquisition	Difficulty	Difficult		
	ROW	1,020.0		
Project Cost	Compensation	1,275.0		
(PHPmil)	Construction	3,056.0 1)		
,	Total	5,351.0		
Technical Issues for Construction		Insignificant		
Re	marks	1) including 1 major bridge and 2 minor bridges		

Category	C-6 East Section	Project Location: NCR
Primary	0-0 Last decilon	PW1-2
Description:		Chu.
This road wil	I connect the northern suburb directly with the	PC4 PC3-1
southern Lag	guna coast through eastern of Metro Manila. It	

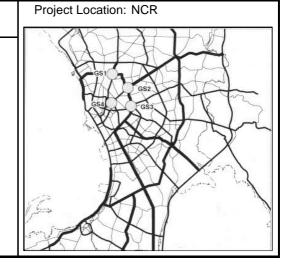
will become the outer ring road, and at the same time the eastern end of the north-south corridor in the grid pattern development.

C	ode	PS5-1	PS5-2	PS5-3	
Item		Rodriguez- R-7	R-7 - R-4	R-4 -Alabang	
		7.5 km	17.0 km	14.5 km	
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	
	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	New	
Турс	Status	DPWH Plan	DPWH Plan	DPWH Plan	
	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	
Noau	Pavement				
	Land Use	Housing	Housing	Coastal water	
Roadside Condition	Density	Medium	High		
Condition	Squatter	Significant	Medium	None	
Environmen	tal Constraints	Relocation necessary	Relocation necessary	Reclamation necessary	
ROW	Area (m²)	255,000	578,000	493,000	
Acquisition	Difficulty	Partly difficult	Difficult	Partly difficult	
	ROW	663.0	1,734.0	1,479.0	
Project Cost	Compensation	765.0	2,890.0	98.6	
(PHPmil)	Construction	3,528.0 1)	147.9 2)	222.4 3)	
,	Total	4,956.0	4,771.9	1,800.0	
	al Issues for struction	Insignificant	Insignificant	Embankment on reclamation	
Re	marks	including 1 major bridge and 3 minor bridges	2) including 2 major bridges and 3 minor bridges	3) including 7 majorbridges	

Category
Primary
Grade Separation Projects: Group 1

Description:

This project will construct grade separation structures between existing primary arterial streets in the urban area.

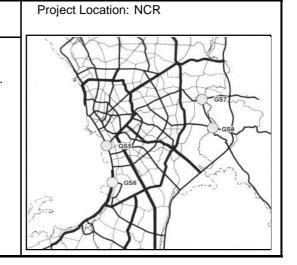


C	Code	GS1	GS2	GS3	GS4
ı	tem	C-3/A. Bonifacio	C-3/Quezon Ave.	C-3/Aurora Blvd.	España/Pres. Quirino Ave.
Αį	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
D	Standard	4-leg	4-leg	4-leg	4-leg
Project Type	Type of Work	New	New	New	New
Type	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
F : .:	Classification	Primary*Primary	Primary*Primary	Primary*Primary	Primary*Primary
Existing Road	ROW (m)				
rtodd	Pavement	Concrete	Concrete	Asphalt	Concrete
	Land Use	Commercial	Commercial	Commercial	Commercial
Roadside Condition	Density	High	High	High	High
Condition	Squatter	Medium	Significant	Significant	Medium
Environmer	ntal Constraints	Insignificant	Insignificant	Insignificant	Insignificant
ROW	Area (m ²)				
Acquisition	Difficulty	N.A.	N.A.	N.A.	N.A.
	ROW	0.0	0.0	0.0	0.0
Project Cost	Compensation	0.0	0.0	0.0	0.0
(PHPmil)	Construction	960.0 1)	960.0 2)	960.0 3)	960.0 4)
,	Total	960.0	960.0	960.0	960.0
	al Issues for struction	Coordination with future freeway	Coordination with future freeway	Coordination with future freeway	Insignificant
Re	marks	1) including 1 major underpass	2) including 1 major underpass	3) including 1 major underpass	4) including 1 major flyover

Category
Primary
Grade Separation Projects: Group 2

Description:

This project will construct grade separation structures between existing primary arterial streets in the urban area.

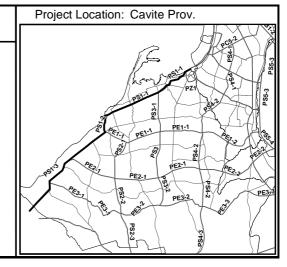


C	Code	GS5	GS6	GS7	GS8
ı	tem	Roxas Blvd./Pres. Quirino Ave.	Roxas Blvd./Mia Road	Marcos Hwy/ Imelda Ave.	Ortigas Ave./ Imelda Ave.
Αç	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
D	Standard	3-leg	3-leg	4-leg	4-leg
Project Type	Type of Work	New	New	New	New
Турс	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
	Classification	Primary*Primary	Primary*Primary	Primary*Primary	Primary*Primary
Existing Road	ROW (m)				
rtodd	Pavement	Asphalt	Asphalt	Asphalt	Asphalt
	Land Use	Commercial	Commercial	Commercial	Commercial
Roadside Condition	Density	High	High	High	High
Condition	Squatter	Minimal	Medium	Medium	Medium
Environmer	ntal Constraints	Ocean view reservation	Insignificant	Insignificant	Insignificant
ROW	Area (m²)				
Acquisition	Difficulty	N.A.	N.A.	N.A.	N.A.
	ROW	0.0	0.0	0.0	0.0
Project Cost	Compensation	0.0	0.0	0.0	0.0
(PHPmil)	Construction	960.0 1)	960.0 2)	960.0 3)	960.0 4)
, ,	Total	960.0	960.0	960.0	960.0
	al Issues for struction	Insignificant	Insignificant	Insignificant	Insignificant
Remarks		1) including 1 major flyover	2) including 1 major flyover	3) including 1 major flyover	4) including 1 major flyover

Category
Primary
Talaba-Maragondon Road

Description:

This project will connect the Coastal Road with potential south-eastern suburban centers of Bacoor, Kawit, Noveleta, Tanza, Naic, and finally Maragondon. It will be the west-end of the south corridor.

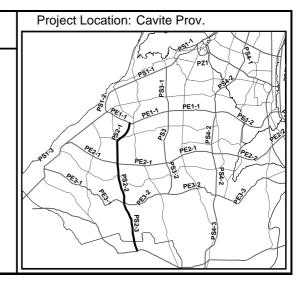


C	Code	PS1-1	PS1-2	PS1-3	
Item		Talaba-Tanza	Tanza-Naic	Naic-Maragondon	
		16.5 km	11.5 km	7.0 km	
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	
D	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	Improvement	Improvement	
Турс	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
F : ::	Classification		National Road	National Road	
Existing Road	ROW (m)	N.A.	10.0	10.0	
rtoda	Pavement		Concrete	Concrete	
	Land Use	Agricultural	Rural Housing	Rural Housing	
Roadside Condition	Density	Low	Low	Low	
Condition	Squatter	Minimal	None	None	
Environmen	ital Constraints	Insignificant	Insignificant	Insignificant	
ROW	Area (m²)	561,000	276,000	168,000	
Acquisition	Difficulty	Partly difficult	Not difficult	Not difficult	
	ROW	561.0	276.0	168.0	
Project Cost	Compensation	112.2	82.8	50.4	
(PHPmil)	Construction	3,440.0 1)	1,152.0	704.0	
, ,	Total	4,113.2	1,510.8	922.4	
	al Issues for struction	Insignificant	Insignificant	Insignificant	
Remarks		1) including 1 major flyover			

Category	Gen. Trias-Indang Road
Primary	Gen. Thas-indang Road

Description:

This road will connect Gen. Trias (PE1) with the south potential suburban centers of Trece Martires and Indang. It will be the second north-south corridor of the proposed grid network in the south suburban area.



C	Code	PS2-1	PS2-2	PS2-3	
Item		Gen. Trias-Punta	Punta-T. Martires	T. Martires-Indang	
		3.0 km	8.0 km	9.0 km	
Ą	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Retion IV-A	
.	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	Improvement	Improvement	
Type	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
	Classification		National Road	National Road	
Existing Road	ROW (m)	N.A.	10.0	10.0	
rtoda	Pavement		Concrete	Concrete	
5	Land Use	Agricultural	Rural Housing	Rural Housing	
Roadside Condition	Density	Low	Low	Low	
Condition	Squatter	None	None	None	
Environmer	ntal Constraints	Insignificant	Insignificant	Insignificant	
ROW	Area (m²)	102,000	192,000	216,000	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	56.1	105.6	97.2	
Project Cost	Compensation	20.4	57.6	64.8	
(PHPmil)	Construction	452.0	804.0	904.0	
,	Total	528.5	967.2	1,066.0	
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	
Re	marks				

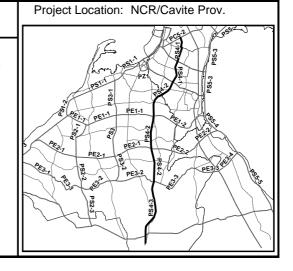
Category Primary	Kawit-Mabatang Road	Project Location: Cavite Prov.
Description: This Road wi center of Das	Il connect Kawit and potential southern suburban smarinas. It will be the third north-south corridor ed grid network in the south suburban area, and 3.	ESSA ESSA PEL-1 PEL-1

Code		PS3-1	PS3-2	
ltem		Kawit-Bucandala	Bucandala- Mabatang	
		5.5 km	11.0 km	
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	
D	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
.) 0	Status	MMUTIS proposal	MMUTIS proposal	
Fuitations	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
	Pavement			
Daadaida	Land Use	Agricultural	Agricultural	
Roadside Condition	Density	Low	Low	
	Squatter	None	None	
Environmen	ital Constraints	Insignificant	Insignificant	
ROW	Area (m²)	187,000	374,000	
Acquisition	Difficulty	Not difficult	Not difficult	
	ROW	187.0	280.5	
Project Cost	Compensation	37.4	74.8	
(PHPmil)	Construction	828.0	1,656.0	
,	Total	1,052.4	2,011.3	
Technical Issues for Construction		Insignificant	Insignificant	
Re	marks			

Category South Central Road

Description:

This road will connect C-5 with urbanized area of Las Piñas the potential suburban center of Dasmariñas, and Silang. It is expected to be the second major axis in the south suburban area next to the existing South Luzon Expressway corridor in the proposed grid network.



Code		PS4-1	PS4-2	PS4-3	
ltem		C-5 -Alabang Zapote Rd.	Alabang Zapote RdDas Mariñas	Das Mariñas- Silang	
		8.0 km	12.5 km	16.5 km	
Agency		DPWH URPO	URPO/Region IV-A	DPWH Region IV-A	
Б	Standard	Primary (6+4 lanes)	Primary (6+4 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	New	
. , p o	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
Cylintina	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	
	Pavement				
Roadside	Land Use	Housing	Housing	Rural Housing	
Condition	Density	High	Medium	Low	
	Squatter	Minimal	Minimal	None	
Environmen	ital Constraints	Relocation necessary	Relocation necessary	Insignificant	
ROW	Area (m²)	408,000	637,500	561,000	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	1,326.0	1,753.1	252.5	
Project Cost	Compensation	2,040.0	1,912.5	168.3	
(PHPmil)	Construction	4,700.0 1)	4,780.0 2)	2,484.0	
,	Total	8,066.0	8,445.6	2,904.8	
Technical Issues for Construction		Insignificant	Partly utilizing existing road	Insignificant	
Re	marks	1) including 1 major flyover & 2 major bridges	2) including 2 major bridges		

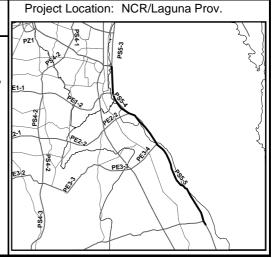
Category

Primary

Laguna de Bay Coastal Road

Description:

This road will be the southern extension of C-6 to connect eastern of Metro Manila with the suburban centers of Alabang, Muntinlupa, San Pedro, Biñan, Santa Rosa, Cabuyao and Calamba. It will be the east-end of the north-south corridor in the proposed grid network of primary roads in the south suburban area. Although this road is an extension of C-6, after Alabang it is identified as Laguna de Bay Coastal Road.

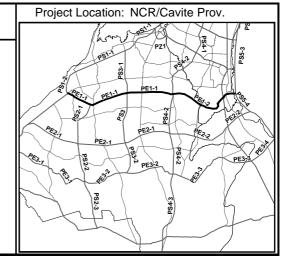


C	Code	PS5-4	PS5-5	
ltem		Alabang-Santa Rosa	Santa Rosa- Calamba	
		12.5 km	19.5 km	
Αį	gency	URPO/Region IV-A	DPWH Region IV-A	
Desired	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
1 9 0 0	Status	MMUTIS proposal	MMUTIS proposal	
F : (:	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
	Pavement			
Dandaida	Land Use	Coastal Water	Rural Housing	
Roadside Condition	Density		Low	
	Squatter	None	Minimal	
Environmen	tal Constraints	Reclamation necessary	Insignnificant	
ROW	Area (m²)	425,000	663,000	
Acquisition	Difficulty	Not difficult	Not difficult	
	ROW	1,615.0	1,326.0	
Project Cost	Compensation	85.0	132.6	
(PHPmil)	Construction	3,320.0 1)	4,372.0 2)	
,	Total	5,020.0	5,830.6	
Technical Issues for Construction		Embankment on reclamation	Insignnificant	
Remarks		1) including 3 major bridges	2) including 3 major bridges	

Category	Tanza-Muntinglupa Road
Primary	ranza-wunungupa Roau

Description:

This road will connect the western suburban center of Tanza with Muntinlupa. It will be the first suburban west-east corridor next to the existing Alabang Zapote Road in the proposed grid network in the south suburban area.

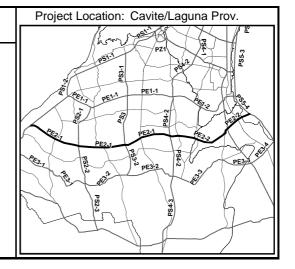


Code		PE1-1	PE1-2	
Item		Tanza-South Central Rd.	South Central Rd Muntinglupa	
		14.5 km	10.0 km	
Αç	gency	DPWH Region IV-A	Region IV-A/URPO	
Duois et	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
1,700	Status	MMUTIS proposal	MMUTIS proposal	
Eviation a	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
	Pavement			
Deedeide	Land Use	Agricultural	Housing	
Roadside Condition	Density	Low	Medium	
	Squatter	None	Minimal	
Environmen	ital Constraints	Insignificant	Relocation necessary	
ROW	Area (m²)	493,000	340,000	
Acquisition	Difficulty	Not difficult	Partly difficult	
	ROW	542.3	799.0	
Project Cost	Compensation	98.6	1,020.0	
(PHPmil)	Construction	2,180.0	2,464.0 1)	
	Total	2,820.9	4,283.0	
Technical Issues for Construction		Insignificant	Hilly topography	
Remarks			1) including 1 major bridge	

Category
Primary
Calibuyo-San Pedro Road

Description:

This road will connect Calibuyo, a western coastal town between Tanza and Naic with the San Pedro. It will be the second suburban west-east corridor next to PE1 in the proposed grid network in the south suburban area.

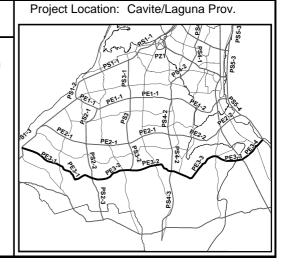


C	Code	PE2-1	PE2-2	
Item		Calibuyo-South Central Rd.	South Central Rd San Pedro	
		19.0 km	11.5 km	
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	
Б	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
1 900	Status	MMUTIS proposal	MMUTIS proposal	
Eviation a	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
	Pavement			
D	Land Use	Agricultural	Housing	
Roadside Condition	Density	Low	Medium	
Condition	Squatter	None	Minimal	
Environmen	ital Constraints	Insignificant	Relocation necessary	
ROW	Area (m²)	646,000	276,000	
Acquisition	Difficulty	Not difficult	Partly difficult	
	ROW	581.4	276.0	
Project Cost	Compensation	129.2	828.0	
(PHPmil)	Construction	2,860.0	2,688.0 1)	
, ,	Total	3,570.6	3,792.0	
Technical Issues for Construction		Insignificant	Hilly topography	
Remarks			1) including 1 major bridge	

Primary Naic-Biñan Road

Description:

This road will connect the potential western coastal suburban center of Naic with Biñan. It will be an improvement of the existing Naic-Biñan Road and form the third suburban west-east corridor next to PE2 in the south suburban area.

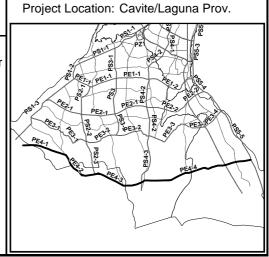


C	Code	PE3-1	PE3-2	PE3-3	PE3-4
ltem		Naic-Trece Martires	Trece Martires- South Central Rd.	South Central Rd Carmona	Carmona-Biñan
		12.5 km	13.0 km	8.5 km	7.5 km
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A
D	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)
Project Type	Type of Work	Improvement	Improvement	Improvement	New
1 3 50	Status	DPWH	DPWH	DPWH	MMUTIS proposal
F · ·	Classification	National Road	National Road	National Road	
Existing Road	ROW (m)	10.0	10.0	10.0	N.A.
rtodd	Pavement	Concrete	Concrete	Concrete	
5	Land Use	Agricultural	Rural Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Low	Low	Medium	Medium
Condition	Squatter	None	None	Minimal	Minimal
Environmen	tal Constraints	Insignificant	Insignificant	Some relocation necessary	Some relocation necessary
ROW	Area (m²)	300,000	312,000	204,000	255,000
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	Not difficult
	ROW	210.0	265.2	224.4	255.0
Project Cost	Compensation	60.0	93.6	102.0	127.5
(PHPmil)	Construction	1,256.0	1,304.0	852.0	2,088.0 1)
,	Total	1,526.0	1,662.8	1,178.4	2,470.5
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Remarks					1) including 1 major bridge

Category
Primary
Maragondon-Cabuyao Road

Description:

This road will connect a south-west terminal suburban center of Maragondon with Laguna coast of Cabuyao. It will form the fourth and the most south suburban west-east corridor next to PE3 in the south suburban area.



Code		PE4-1	PE4-2	PE4-3	PE4-4
ı	tem	Maragondon- Calumpan Lejos	Calumpan Lejos- Indang	Indang-South Central Rd.	South Central Rd Cabuyao
		14.0 km	5.0 km	10.0 km	22.0 km
Αç	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A
Destant	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)
Project Type	Type of Work	New	Improvement	New	New
1,750	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
E tarre	Classification		National Road		
Existing Road	ROW (m)	N.A.	10.0	N.A.	N.A.
rtodd	Pavement		Concrete		
5	Land Use	Agricultural	Rural Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Low	Medium	Low	Low
Condition	Squatter	None	Minimal	None	None
Environmer	ntal Constraints	Insignificant	Some relocation necessary	Insignificant	Insignificant
ROW	Area (m²)	476,000	120,000	340,000	748,000
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	Not difficult
	ROW	190.4	12.0	85.0	598.4
Project Cost	Compensation	95.2	60.0	102.0	224.4
(PHPmil)	Construction	2,108.0	500.0	1,504.0	4,268.0 1)
,	Total	2,393.6	572.0	1,691.0	5,090.8
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Remarks					1) including 1 major bridge

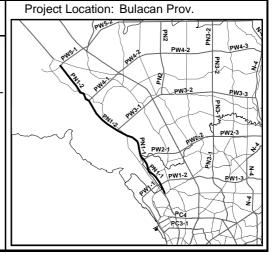
Category	Talaba/Zapote Ring Road	Project Location: Cavite Prov.
Primary		ecs.
	connect PS1 and the existing Alabang-Zapote ass Talaba/Zapote. It will ease traffic congestion	758
by bypassing	the through-traffic coming into the urban center, the traffic movement in this area.	PZ1
		P51.7
		PE1-1

Code		PZ1		
ı	tem	Talaba/Zapote Ring Road		
		2.5 km		
Αg	gency	DPWH Region IV-A		
D : .	Standard	Primary (6 lanes)		
Project Type	Type of Work	New		
1 7 50	Status	MMUTIS proposal		
Foriation or	Classification			
Existing Road	ROW (m)	N.A.		
	Pavement			
D 1:1	Land Use	Housing		
Roadside Condition	Density	Medium		
00.10.110.1	Squatter	Minimal		
Environmen	tal Constraints	Reclamation necessary		
ROW	Area (m²)	85,000		
Acquisition	Difficulty	Partly difficult		
	ROW	204.0		
Project Cost	Compensation	255.0		
(PHPmil)	Construction	376.0		
,	Total	835.0		
Technical Issues for Construction		Insignificant		
Remarks				

Category	Caloocan-Malolos Coastal Road
Primary	Caloocali-ivialolos Coastal Road

Description:

This road will be a coastal corridor to connect Caloocan, Malabon, Navotas, and Valenzuela with the northwestern suburban center of Malolos. It will be the westend of the north-south corridor in the proposed grid network in the north suburban area and will function as complement to the existing North Luzon Expressway.



C	Code	PN1-1	PN1-2	
ı	tem	C-5 -Taliptip	Taliptip-Malolos	
		9.0 km	14.0 km	
Αį	gency	DPWH Region III	DPWH Region III	
5	Standard	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	
. 700	Status	MMUTIS proposal	MMUTIS proposal	
F : "	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
rtodd	Pavement			
5	Land Use	Housing	Agricultural	
Roadside Condition	Density	Medium	Low	
Condition	Squatter	Minimal	None	
Environmen	ital Constraints	Reclamation of swamp area	Reclamation of swamp area	
ROW	Area (m²)	306,000	476,000	
Acquisition	Difficulty	Partly difficult	Not difficult	
	ROW	459.0	380.8	
Project Cost	Compensation	918.0	95.2	
(PHPmil)	Construction	3,272.0 1)	4,504.0 2)	
,	Total	4,649.0	4,980.0	
Technical Issues for Construction		Insignificant	Insignificant	
Remarks		1) including 2 major bridges	2) including 1 major bridge & 3 minor bridges	

Project Location: Bulacan Prov.
PW4-2 PW4-2 PW4-2 PW4-3 PW3-2 PW3-3 PW2-3 PW

Code		PN2		
	Joue	1112		
١,	tem	Santa Maria-Pandi		
		10.5 km		
Ad	gency	DPWH Region III		
	Standard	Primary (6 lanes)		
Project	Type of Work	New		
Type	Status	MMUTIS proposal		
	Classification			
Existing Road	ROW (m)	N.A.		
Rodu	Pavement			
5	Land Use	Agricultural		
Roadside Condition	Density	Low		
Condition	Squatter	None		
Environmer	ntal Constraints	Insignificant		
ROW	Area (m²)	357,000		
Acquisition	Difficulty	Not difficult		
	ROW	428.4		
Project Cost	Compensation	71.4		
(PHPmil)	Construction	3,496.0 1)		
,	Total	3,995.8		
Technical Issues for Construction		Insignificant		
Remarks		1) including 1 major bridge & 2 minor bridges		

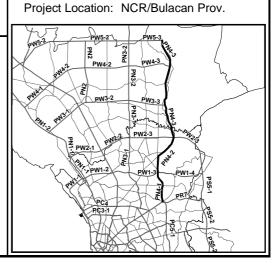
Category Primary	North Central Road	Project Location: NCR/Bulacan Prov.
urban sub-ce . It is expecte northern sub-	connect C-4 (EDSA) with the potential northern enter of San Jose Delmonte and Norzagaray ed to be the second major axis in the urban area next to the existing North Luzon corridor in the proposed grid network.	PW5-2 PW4-2 PW3-2 PW3-3 PW2-3 PW3-3

C	Code	PN3-1	PN3-2	
ltem		Quirino Hwy-Pastol	Pastol-Angat	
		14.0 km	14.0 km	
Αį	gency	URPO/Region III	DPWH Region III	
D : .	Standard	Primary (6+4 lanes)	Primary (6+4 lanes)	
Project Type	Type of Work	New	New	
1 1 1 1	Status	MMUTIS proposal	MMUTIS proposal	
- · · ·	Classification			
Existing Road	ROW (m)	N.A.	N.A.	
rtodd	Pavement			
5	Land Use	Housing	Rural Housing	
Roadside Condition	Density	Medium	Low	
Condition	Squatter	Minimal	None	
Environmen	tal Constraints	Relocation necessary	Insignificant	
ROW	Area (m²)	714,000	714,000	
Acquisition	Difficulty	Partly difficult	Not difficult	
	ROW	642.6	321.3	
Project Cost	Compensation	2,142.0	142.8	
(PHPmil)	Construction	7,508.0 1)	4,148.0 2)	
,	Total	10,292.6	4,612.1	
Technical Issues for Construction		Insignificant	Insignificant	
Remarks		1) including 3 major bridges & 3 minor bridges	2) including 1 major bridge	

Category C-5 North Extension

Description:

This road will be an extension of the north-south axis of C-5 to extend the circumferential role of C-5 to a grid pattern in the suburb. It will be the eastend of the north-south corridor in the proposed grid network in the northern suburban area, and will form the eastern boundary of a potential development area.

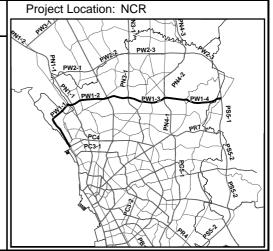


C	Code	PN4-1	PN4-2	PN4-3	
Item		Diliman-South Fairview	South Fairview- Bankers Village	Bankers Village- Norzagaray	
		7.0 km	7.5 km	15.5 km	
Ag	gency	DPWH URPO	DPWH URPO	DPWH Region III	
Б.,	Standard	Primary (6+4 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	Improvement	New	
1 1 1 1	Status	DPWH Plan	MMUTIS proposal	MMUTIS proposal	
- · · ·	Classification		National Road		
Existing Road	ROW (m)	N.A.	30.0	N.A.	
rtodd	Pavement		Concrete		
	Land Use	Housing	Rural Housing	Rural Housing	
Roadside Condition	Density	High	Medium	Medium	
Condition	Squatter	Minimal	Minimal	Minimal	
Environmen	tal Constraints	Major relocation necessary	Insignificant	Relocation necessary	
ROW	Area (m²)	357,000	30,000	527,000	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	4,284.0	225.0	474.3	
Project Cost	Compensation	1,785.0	15.0	263.5	
(PHPmil)	Construction	3,512.0 1)	2,088.0 2)	3,292.0 3)	
,	Total	9,581.0	2,328.0	4,029.8	
Technical Issues for Construction		Insignificant	Insignificant	Hilly topography	
Remarks		1) including 2 major bridges	2) including 1 major bridges	3) including 2 minor bridges	

Category C-5 North Section

Description:

This road will connect the western coast of Navotas and Malabon with PS5 corridor through suburban center of Fairview. It will be the first west-east corridor of the proposed grid network in the north suburb.



C	Code	PW1-1	PW1-2	PW1-3	PW1-4
Item		Navotas-Del Pilar	Del Pilar-North Central Road	North Central Road- South Fairview	South Fairview - C-6
		7.0 km	7.0 km	5.5 km	7.5 km
Αç	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Б	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)
Project Type	Type of Work	New	New	New	Existing + New
Турс	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
	Classification				National Road
Existing Road	ROW (m)	N.A.	N.A.	N.A.	50.0
rtoda	Pavement				Concrete
5	Land Use	Housing	Industrial	Housing	Housing
Roadside Condition	Density	Medium	High	High	Medium
Condition	Squatter	Minimal	Medium	Medium	Minimal
Environmen	ntal Constraints	Reclamation of swamp area	Relocation necessary	Relocation necessary	Relocation necessary
ROW	Area (m²)	238,000	238,000	187,000	193,800
Acquisition	Difficulty	Partly difficult	Difficult	Difficult	Partly difficult
	ROW	809.2	809.2	935.0	872.1
Project Cost	Compensation	714.0	2,380.0	935.0	581.4
(PHPmil)	Construction	5,848.0	2,012.0 1)	828.0 2)	1,128.0
,	Total	7,371.2	5,201.2	2,698.0	2,581.5
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Partly hilly topography
Remarks			1) including 5 major bridges	2) including 1 major flyover	

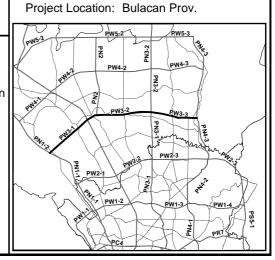
Category Primary	C-6 North Section	Project Location: Bulacan Prov.
connects Ob	Il be an outer ring road of Metro Manila and vando, Meycauayan northern of Fairview area. We boundary of existing circumferential network e basis for the grid pattern development in burban area.	PW3-2 PW3-3 PW2-3 PW1-2 PW1-2 PW1-3 PW1-2 PW1-3 PPR1-2 PW1-3 PW1

C	Code	PW2-1	PW2-2	PW2-3	
ltem		Paco-NLE	NLE-North Central Rd.	North Central Rd Rodriguez	
		5.5 km	5.5 km	13.0 km	
Αį	gency	DPWH Region III	DPWH Region III	DPWH URPO	
Б	Standard	Primary (6 lanes)	Primary (6+4 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	New	
Турс	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
F	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	
rtodd	Pavement				
5	Land Use	Housing	Rural Housing	Housing	
Roadside Condition	Density	Medium	Medium	Medium	
Condition	Squatter	Minimal	Minimal	Minimal	
Environmer	ntal Constraints	Relocation necessary	Relocation necessary	Relocation necessary	
ROW	Area (m²)	187,000	280,500	442,000	
Acquisition	Difficulty	Difficult	Partly difficult	Difficult	
	ROW	841.5	224.4	663.0	
Project Cost	Compensation	561.0	140.3	1,326.0	
(PHPmil)	Construction	3,224.0 1)	43.3 2)	4,352.0 3)	
Total		4,626.5	408.0	6,341.0	
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	
Remarks		1) including 2 major bridges and 1 minor bridge	2) including 1 minor bridge	3) including 1 major bridge and 3 minor bridges	

Category
Primary
Taliptip-San Jose Delmonte Road

Description:

This road will connect the coastal area between Bulacan and Meycauayan with the potential northeastern suburban center of San Jose Del Monte. It will be the third east-west corridor in the grid pattern development in the north suburban area.

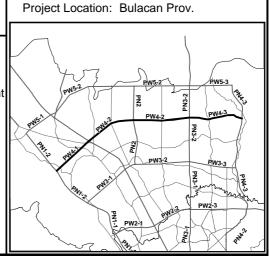


C	Code	PW3-1	PW3-2	PW3-3	
ltem		Taliptip-NLE	NLE-North Central Rd.	North Central Rd San Jose Delmonte	
		6.5 km	8.5 km	6.0 km	
Αç	gency	DPWH Region III	DPWH Region III	DPWH Region III	
Danis	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	New	
. , , , ,	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
Cuinting	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	
	Pavement				
Roadside	Land Use	Agricultural	Rural Housing	Rural Housing	
Condition	Density	Low	Low	Medium	
	Squatter	None	None	Minimal	
Environmen	tal Constraints	Insignificant	Insignificant	Insignificant	
ROW	Area (m²)	221,000	289,000	204,000	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	442.0	289.0	122.4	
Project Cost	Compensation	44.2	86.7	102.0	
(PHPmil)	Construction	3,376.0 1)	1,280.0	1,384.0 2)	
,	Total	3,862.2	1,655.7	1,608.4	
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	
Remarks		1) including 2 major bridges and 1 minor bridge		2) including 1 minor bridge	

Category
Primary
Bulacan-Sapangpalay Road

Description:

This road will connect the coastal area of Bulacan with the potential northeastern suburban area of Sapangpalay. It will be the fourth east-west corridor in the grid pattern development in the north suburban area.

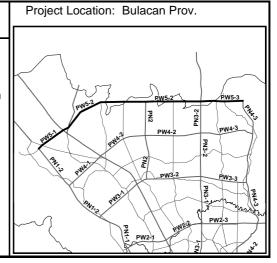


Code		PW4-1	PW4-2	PW4-3	
ltem		Bulacan-NLE	NLE-North Central Rd.	North Central Rd Sapangpalay	
		5.5 km	13.5 km	7.0 km	
Ag	gency	DPWH Region III	DPWH Region III	DPWH Region III	
D	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	New	
1 900	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
F · ·	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	
11000	Pavement				
Dandaida	Land Use	Agricultural	Agricultural	Rural Housing	
Roadside Condition	Density	Low	Low	Low	
	Squatter	None	None	None	
Environmen	tal Constraints	Insignificant	Insignificant	Insignificant	
ROW	Area (m²)	187,000	459,000	238,000	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	187.0	367.2	119.0	
Project Cost	Compensation	37.4	91.8	71.4	
(PHPmil)	Construction	3,704.0 1)	3,468.0 2)	1,532.0 3)	
	Total	3,928.4	3,927.0	1,722.4	
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	
Remarks		1) including 2 major bridges and 2 minor bridges	2) including 3 minor bridges	3) including 1 minor bridge	

Category Malolos-Norzagaray Road

Description:

This road will connect the coastal suburban center of Malolos with northern Norzagaray. It will be the fifth and final east-west corridor in the grid pattern development in the north suburban area.



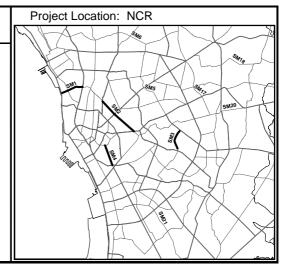
Code		PW5-1	PW5-2	PW5-3	
Item		Malolos-NLE	NLE-North Central Rd.	North Central Rd Norzagaray	
		4.0 km	19.0 km	5.5 km	
Ag	gency	DPWH Region III	DPWH Region III	DPWH Region III	
Desired	Standard	Primary (6 lanes)	Primary (6 lanes)	Primary (6 lanes)	
Project Type	Type of Work	New	New	New	
.) 0	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
Cylotina	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	
	Pavement				
Roadside	Land Use	Agricultural	Agricultural	Rural Housing	
Condition	Density	Low	Low	Low	
	Squatter	None	None	None	
Environmen	tal Constraints	Insignificant	Insignificant	Insignificant	
ROW	Area (m²)	136,000	646,000	187,000	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	680.0	646.0	56.1	
Project Cost	Compensation	27.2	129.2	56.1	
(PHPmil)	Construction	1,560.0 1)	3,820.0 2)	1,788.0 3)	
,	Total	2,267.2	4,595.2	1,900.2	
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	
Re	marks	1) including 1 major bridge	2) including 2 minor bridges	3) including 2 minor bridges	

Category
Secondary

M. Manila Secondary Road Development (1)

Description:

This project will develop new secondary arterial streets in Metro Manila to enhance smoother traffic flow by giving alternative routes, easing bottlenecks, increasing capacity of congested areas. These secondary streets will complement the primary arterial network and will be expected to serve more specific traffic demands in Metro Manila.



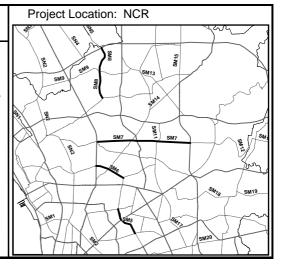
Code		SM1	SM2	SM3	SM4
ltem		Aurora Ave. Extension to R-10	A.M. Maceda &Extension to Aurora Blvd.	F. Martinez Extension to Ortigas Ave.	SLE Extension (Pres. Quirino-J.P. Laurel)
		2.5 km	3.5 km	1.7 km	1.8 km
Αg	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	New	New	New
1 900	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
F · ·	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	N.A.
rtoad	Pavement				
Daadaida	Land Use	Housing	Housing	Housing	Housing
Roadside Condition	Density	High	High	High	High
00110111011	Squatter	Significant	Significant	Significant	Significant
Environmen	tal Constraints	Major relocation necessary	Major relocation necessary	Major relocation necessary	Major relocation necessary
ROW	Area (m²)	48,750	68,250	33,150	35,100
Acquisition	Difficulty	Difficult	Difficult	Difficult	Difficult
	ROW	219.4	68.3	149.2	877.5
Project Cost	Compensation	243.8	341.3	165.8	175.5
(PHPmil)	Construction	1,264.0 1)	428.0	208.0	1,656.0 2)
,	Total	1,727.1	837.5	522.9	2,709.0
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Remarks		1) including 2 minor bridges			2) including 1 major bridge and 1 minor bridge

Category
Secondary

M. Manila Secondary Road Development (2)

Description:

This project will develop new secondary arterial streets in Metro Manila to enhance smoother traffic flow by giving alternative routes, easing bottlenecks, increaseing capacity for congested areas. These secondary streets will complement the primary arterial streets network, and will be expected to serve for more specific traffic demands in Metro Manila area.

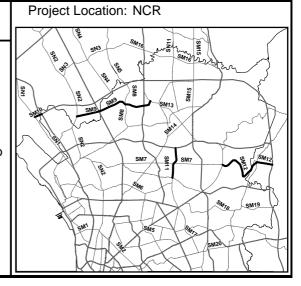


Code		SM5	SM6	SM7	SM8
Item		Gilmore Ave. Extension to Roosevelt	Victoneta Ave. Extension to Congressional Ave.	Sampaguita Ave. West Extension	Prenza-Kaybiga Rd.
		1.5 km	2.5 km	7.5 km	4.5 km
Agency		DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Project Type	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
	Type of Work	New	New	New	New
	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Existing Road	Classification				
	ROW (m)	N.A.	N.A.	N.A.	N.A.
	Pavement				
Roadside Condition	Land Use	Housing	Housing	Housing	Housing
	Density	High	High	High	Medium
	Squatter	Significant	Significant	Significant	Medium
Environmental Constraints		Major relocation necessary	Major relocation necessary	Major relocation necessary	Relocation necessary
ROW Acquisition	Area (m²)	29,250	48,750	146,250	87,750
	Difficulty	Difficult	Difficult	Difficult	Difficult
Project Cost (PHPmil)	ROW	731.3	316.9	731.3	70.2
	Compensation	146.3	243.8	731.3	263.3
	Construction	184.0	304.0	912.0	548.0
	Total	1,061.5	864.6	2,374.5	881.5
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Remarks					

Category
Secondary
M. Manila Secondary Road Development (3)

Description:

This project will develop new secondary arterial streets in Metro Manila to enhance smoother traffic flow by giving alternative routes, easing bottlenecks, increaseing capacity for congested areas. These secondary streets will complement the primary arterial streets network, and will be expected to serve for more specific traffic demands in Metro Manila area.

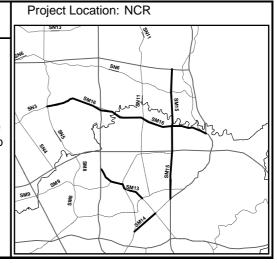


Code		SM9	SM10	SM11	SM12
Item		Meycauayan- Deparo Rd.	C-6 Extension to J.P. Rizal	Visayan Ave. North Extension	Sampaguita Ave. East Extension
		7.0 km	0.3 km	2.7 km	8.8 km
Agency		DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Project Type	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
	Type of Work	New	New	New	New
	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Existing Road	Classification				
	ROW (m)	N.A.	N.A.	N.A.	N.A.
	Pavement				
Roadside Condition	Land Use	Housing	Housing	Housing	Housing
	Density	Medium	High	High	Medium
	Squatter	Medium	Significant	Significant	Medium
Environmental Constraints		Relocation necessary	Major relocation necessary	Major relocation necessary	Relocation necessary
ROW Acquisition	Area (m²)	136,500	5,850	52,650	171,600
	Difficulty	Difficult	Difficult	Difficult	Difficult
	ROW	136.5	26.3	263.3	686.4
Project Cost (PHPmil)	Compensation	409.5	29.3	263.3	514.8
	Construction	1,332.0 1)	36.0	328.0	2,108.0 2)
	Total	1,878.0	91.6	854.5	3,309.2
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Remarks		1) including 1 minor bridge			2) including 1 major bridge and 1 minor bridge

Category Secondary

M. Manila Secondary Road Development (4)

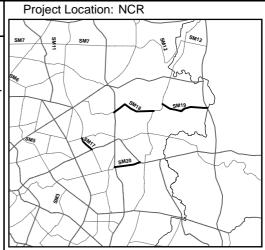
Description:



C	Code	SM13	SM14	SM15	SM16
Item		Don M. Marcos Ave. Extension to North Central Rd.	Quirino Highway Novaliches Bypass	Regalado Ave. North Extension	Marilao-Quirino Rd. (Prenza- Quirino Hwy)
		4.5 km	1.5 km	8.0 km	9.0 km
Αg	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Desired	Standard	Secon. (6 lanes)	Secondary (4 lanes)	Secon. (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	New	New	New
1,750	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Fullation of	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	N.A.
rtodd	Pavement				
Daadaida	Land Use	Housing	Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Medium	Medium	Medium	Medium
o o manuom	Squatter	Medium	Medium	Medium	Medium
Environmen	ntal Constraints	Relocation necessary	Relocation necessary	Insignificant	Insignificant
ROW	Area (m²)	153,000	29,250	156,000	175,500
Acquisition	Difficulty	Difficult	Difficult	Not difficult	Not difficult
	ROW	153.0	146.3	234.0	263.3
Project Cost	Compensation	459.0	87.8	78.0	87.8
(PHPmil)	Construction	1,504.0 1)	184.0	1,452.0 2)	2,056.0 3)
,	Total	2,116.0	418.0	1,764.0	2,407.0
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks	1) including 1 minor bridge		2) including 1 minor bridge	3) including 2 minor bridges

Category
Secondary
M. Manila Secondary Road Development (5)

Description:

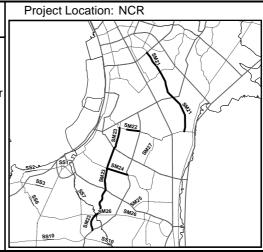


C	Code	SM17	SM18	SM19	SM20
ı	tem	Kalayaan Ave. Extension to 20th Ave.	New Marikina Rd.	Bayan-Bayanan Ave.	Col. B. Serrano Ave. Extension to Marcos Hwy
		1.0 km	3.2 km	3.0 km	2.0 km
Αg	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Destruct	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secon. (6 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	New	New	New
1 300	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
E tarre	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	N.A.
rtoda	Pavement		using Housing Housing		
	Land Use	Housing	Housing	Housing	Housing
Roadside Condition	Density	High	Medium	Medium	Medium
Condition	Squatter	Significant	Medium	Medium	Medium
Environmer	ntal Constraints	Major relocation necessary	Relocation necessary	Relocation necessary	Relocation necessary
ROW	Area (m²)	19,500	62,400	102,000	39,000
Acquisition	Difficulty	Difficult	Difficult	Difficult	Difficult
	ROW	507.0	187.2	306.0	117.0
Project Cost	Compensation	97.5	187.2	306.0	117.0
(PHPmil)	Construction	120.0	868.0 2)	364.0	1,204.0 1)
,	Total	724.5	1,242.4	976.0	1,438.0
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks		2) including 1 minor bridge		1) including 1 major bridge

Category Secondary

M. Manila Secondary Road Development (6)

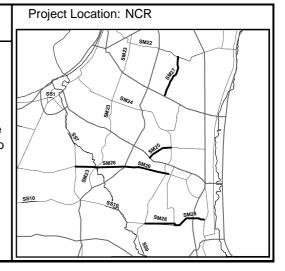
Description:



C	Code	SM21	SM22	SM23	SM24
ltem		Pasay Rd. Extension (EDSA- Gen. Santos)	Jerusalem Extension to Doña Soledad Ave.	New Las Piñas Rd.	Naga Rd. Extension to A. Aguirre Ave.
		7.5 km	0.8 km	10.5 km	0.8 km
Αg	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Dusiaat	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	New	New	New
. , , , ,	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
F : ::	Classification				
Existing Road	ROW (m)	N.A.	N.A.	N.A.	N.A.
rtodd	Pavement				
5	Land Use	Housing	Housing	Housing	Housing
Roadside Condition	Density	High	High	High	High
Condition	Squatter	Medium	Minimal	Minimal	Minimal
Environmer	ntal Constraints	Major relocation necessary	Relocation necessary	Major relocation necessary	Major relocation necessary
ROW	Area (m²)	146,250	15,600	204,750	15,600
Acquisition	Difficulty	Very difficult	Difficult	Very difficult	Difficult
	ROW	3,948.8	15.6	614.3	46.8
Project	Compensation	731.3	78.0	1,023.8	78.0
Cost (PHPmil)	Construction	1,872.0 2)	96.0	2,716.0 1)	96.0
(* * * * * * * * * * * * * * * * * * *	Total	6,552.0	189.6	4,354.0	220.8
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Remarks		2) including 1 major bridge		1) including 2 minor bridges	

Category
Secondary
M. Manila Secondary Road Development (7)

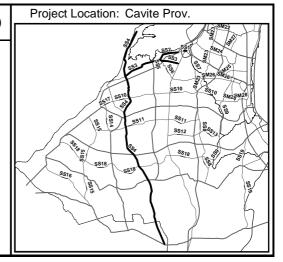
Description:



C	Code	SM25	SM26	SM27	SM28
ltem		Dr. J. Laurel & Extension	Imus-Filinvest Rd.	France Ave. & Extension	Tanza Alabang Rd. (Acacia AveNatl Hwy)
		1.3 km	4.0 km	2.5 km	4.0 km
Αç	gency	DPWH URPO	DPWH URPO	DPWH URPO	DPWH URPO
Dusinst	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	New	New	New+Improvement
1) 0	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Fullation of	Classification				(Estanislao Ave.)
Existing Road	ROW (m)	N.A.	N.A.	N.A.	6.0
	Pavement				Concrete
Daadaida	Land Use	Housing	Housing	Housing	Housing
Roadside Condition	Density	High	Medium	High	High
Condition	Squatter	Minimal	Minimal	Minimal	Minimal
Environmer	ntal Constraints	Major relocation necessary	Relocation necessary	Major relocation necessary	Major relocation necessary
ROW	Area (m²)	25,350	78,000	48,750	78,000
Acquisition	Difficulty	Difficult	Difficult	Difficult	Difficult
	ROW	76.1	234.0	146.3	234.0
Project Cost	Compensation	126.8	234.0	243.8	390.0
(PHPmil)	Construction	156.0	488.0	304.0	904.0
,	Total	358.8	956.0	694.0	1,528.0
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks				

Category
Secondary
South Manila Secondary Road Improvement (1)

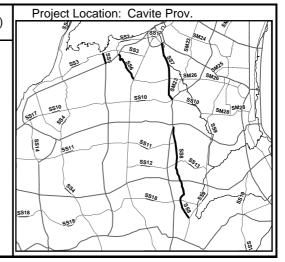
Description:



C	Code	SS1	SS2	SS3	SS4
1	tem	Las Piñas-Talaba Diversion Rd.	Real Ave. (Aguinaldo-Tirona Hwy)	Hwy 25/Gen. Trias National Rd.	J. Felipe Blvd./Gen. P. Alvarez/Bacao Ave.
		1.0 km	4.3 km	17.0 km	34.5 km
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A
Duningt	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	Improvement	Improvement	Improvement	Improvement
1,700	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Foriation or	Classification	National Road	National Road	National Road	National Road
Existing Road	ROW (m)	15.0	10.0	10.0	10.0
rtodd	Pavement	Concrete	Real Ave. (Aguinaldo-Tirona Hwy) 17.0 km 18.0 keen literally lit	Concrete	
5	Land Use	Housing	Housing	Housing	Rural Housing
Roadside Condition	Density	Medium	Medium	Medium	Medium
Condition	Squatter	Medium	Medium	Medium	Medium
Environmer	ital Constraints	Relocation necessary			Relocation necessary
ROW	Area (m²)	4,500	40,850	161,500	327,750
Acquisition	Difficulty	Moderete	Moderate	Moderate	Moderate
	ROW	10.8	40.9	161.5	180.3
Project Cost	Compensation	13.5	122.6	484.5	163.9
(PHPmil)	Construction	60.0	260.0	1,036.0	2,100.0
,	Total	84.3	423.4	1,682.0	2,444.1
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks				

Category
Secondary
South Manila Secondary Road Improvement (2)

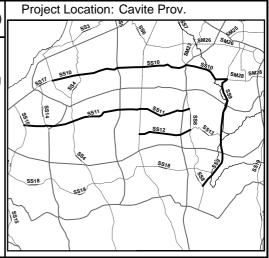
Description:



(Code	SS5	SS6	SS7	SS8
	tem	PS3 North Extension	Imus River East Road	Moleno National Road	Moleno National Road Extension
		0.9 km	3.5 km	6.5 km	11.0 km
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A
Б	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	Improvement	Improvement	Improvement
Турс	Status	MMUTIS proposal	MMUTIS proposal		MMUTIS proposal
F	Classification		National Road	National Road	National Road
Existing Road	ROW (m)	N.A.	6.0	6.0	10.0
rtoad	Pavement		Concrete	Concrete	Concrete
	Land Use	Housing	Housing	Housing	Rural Housing
Roadside Condition	Density	Medium	Medium	Medium	Low
Condition	Squatter	Medium	Medium	Medium	None
Environmer	ntal Constraints	Relocation necessary	Relocaiton necessary	Relocation necessary	Insignificant
ROW	Area (m²)	17,550	47,250	87,750	104,500
Acquisition	Difficulty	Moderete	Difficult	Medium Me	Not difficult
	ROW	17.6	47.3	87.8	104.5
<u>-</u>	Compensation	52.7	141.8	263.3	31.4
ROW Area (m²) 17,550 Acquisition Difficulty Moderete ROW Troject Cost (PHPmil) Construction Tropic 1,068.0 1)	212.0	364.0	668.0		
(* * * * * * * * * * * * * * * * * * *	Total	1,138.2	401.0	715.0	803.9
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks	1) including 1 major bridge			

Category
Secondary
South Manila Secondary Road Improvement (3)

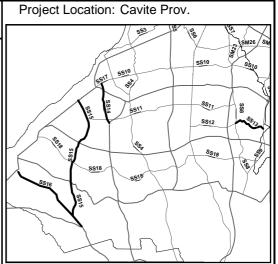
Description:



C	Code	SS9	SS10	SS11	SS12
ı	tem	Acacia Ave. Extension	Tanza-Alabang Rd. (Tanza-Acacia Ave.)	South Tanza-South Pag-Asa Rd.	Salitran-Salawag Rd.
		10.5 km	17.0 km	16.0 km	5.0 km
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A
Drainet	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	New+Improvement	New	Improvement
1) 0	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Fullation of	Classification				
Existing Road	ROW (m)	N.A.	6.0	N.A.	6.0
rtoda	Pavement		Concrete		Concrete
Decide lab	Land Use	Rural Housing	Rural Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Low	Low	Low	Low
Condition	Squatter	None	None	None	None
Environmer	ntal Constraints	Insignificant	Insignificant	Insignificant	Insignificant
ROW	Area (m²)	204,750	331,500	312,000	67,500
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	Not difficult
	ROW	204.8	497.3	468.0	67.5
Project Cost	Compensation	61.4	99.5	93.6	20.3
(PHPmil)	Construction	2,236.0 1)	3,316.0 2)	3,384.0 3)	304.0
,	Total	2,502.2	3,912.7	3,945.6	391.8
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks	1) including 2 minor bridges	2) including 4 minor bridges	3) including 3 minor bridges	

Category
Secondary
South Manila Secondary Road Improvement (4)

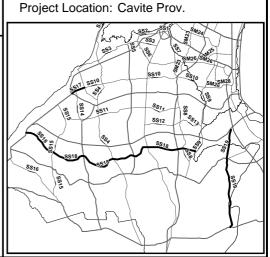
Description:



C	Code	SS13	SS14	SS15	SS16
Item		New Salawag Rd.	Tanza-Punta Rd.	Amaya-Palangue Rd.	Naic-Calumpang Lejos Rd.
		3.5 km	4.5 km	13.5 km	12.0 km
Αg	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A
Desiret	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	Improvement	New	Improvement
1 300	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Fraintin n	Classification		National Road		National Road
Existing Road	ROW (m)	N.A.	6.0	N.A.	6.0
rtodd	Pavement		Concrete	Concrete	Concrete
	Land Use	Rural Housing	Rural Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Low	Low	Low	Low
Condition	Squatter	None	None	None	None
Environmer	ntal Constraints	Insignificant	Insignificant	Insignificant	Insignificant
ROW	Area (m²)	68,250	60,750	263,250	162,000
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	Not difficult
	ROW	68.3	33.4	263.3	64.8
Project Cost	Compensation	20.5	18.2	79.0	48.6
(PHPmil)	Construction	1,384.0 1)	272.0	4,040.0 2)	732.0
,	Total	1,472.7	323.6	4,382.2	845.4
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks	1) including 2 minor bridges		3) including 5 minor bridges	

Category
Secondary
South Manila Secondary Road Improvement (5)

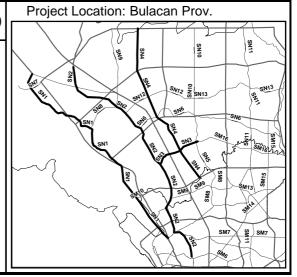
Description:



C	Code	SS17	SS18	SS19	
ı	tem	A.S. Soriano Hwy	Naic-Das Mariñas Rd.	West Carmona Rd.	
		1.7 km	26.0 km	14.5 km	
Αį	gency	DPWH Region IV-A	DPWH Region IV-A	DPWH Region IV-A	
D	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	
Project Type	Type of Work	Improvement	New	New	
Турс	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	
F :	Classification	National Road			
Existing Road	ROW (m)	6.0	N.A.	N.A.	
rtoda	Pavement	Concrete		N.A.	
	Land Use	Rural Housing	Rural Housing	Rural Housing	
Roadside Condition	Density	Low	Low	Low	
Condition	Squatter	None	None	None	
Environmer	ntal Constraints	Insignificant	Insignificant	Insignificant	
ROW	Area (m²)	22,950	507,000	282,750	
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	
	ROW	23.0	507.0	282.8	
Project	Compensation	6.9	152.1	84.8	
Cost (PHPmil)	Construction	104.0	4,604.0 1)	2,244.0 2)	
(* * * * * * * * * * * * * * * * * * *	Total	133.8	5,263.1	2,611.6	
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	
Re	marks		1) including 3 minor bridges	3) including 1 minor bridge	

Category
Secondary
North Manila Secondary Road Improvement (1)

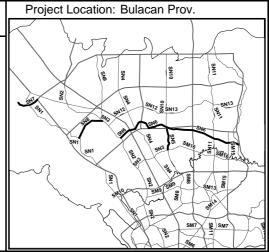
Description:



C	Code	SN1	SN2	SN3	SN4
ı	tem	Panghulo Rd./J.P. Rizal/Baliwas	McArthur Highway	Marilao-Quirino Rd. (McArthur Hwy- Prenza)	Iba-Liciado Rd.
		21.0 km	20.0 km	6.0 km	19.0 km
Αg	gency	DPWH Region III	DPWH Region III	DPWH Region III	DPWH Region III
Dusiant	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	Improvement	Improvement	Improvement	New
. ,,,,	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
Full atting as	Classification		National Road		
Existing Road	ROW (m)	6.0	10.0	6.0	N.A.
rtodd	Pavement	Concrete	Concrete	Concrete	
D laid.	Land Use	Rural Housing	Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Medium	Medium	Medium	Low
Condition	Squatter	Medium	Medium	Minimal	Minimal
Environmer	ntal Constraints	Relocation necessary	Relocaiton necessary	Relocation necessary	Insignificant
ROW	Area (m²)	283,500	190,000	81,000	370,500
Acquisition	Difficulty	Moderete	Difficult	Moderate	Not difficult
	ROW	226.8	190.0	81.0	741.0
Project Cost	Compensation	141.8	570.0	40.5	111.2
(PHPmil)	Construction	1,276.0	1,216.0	364.0	2,700.0 1)
,	Total	1,644.6	1,976.0	485.5	3,552.2
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks				1) including 1 minor bridge

Category
Secondary
North Manila Secondary Road Improvement (2)

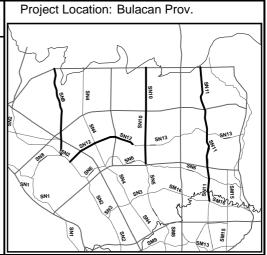
Description:



C	Code	SN5	SN6	SN7	SN8
ı	tem	Kaybiga-Prenza Rd.	Bocaue-Tunkong Manga Rd.	Malolos Ring Road	Bulacan-Wawa Rd.
		4.5 km	18.0 km	2.5 km	4.7 km
Agency		DPWH Region III	DPWH Region III	DPWH Region III	DPWH Region III
D	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	New	Improvement	New	Improvement
1 7 50	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
	Classification		National Road		National Road
Existing Road	ROW (m)	6.0	6.0	N.A.	6.0
Road	Pavement	Concrete	Concrete		
	Land Use	Rural Housing	Rural Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Low	Medium	Medium	Medium
Condition	Squatter	Minimal	Minimal	Minimal	Minimal
Environmer	ntal Constraints	Insignificant	Relocation necessary	Insignificant	Insignificant
ROW	Area (m²)	87,750	243,000	48,750	63,450
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	Moderate
	Agency DF Standard Sec Type of Work Status MM Classification ROW (m) Pavement Land Use Density Squatter Area (m²) Difficulty ROW Compensation Construction Total Inical Issues for	87.8	243.0	48.8	63.5
Project Cost	Compensation	26.3	121.5	24.4	31.7
(PHPmil)	Construction	936.0	1,096.0	304.0	288.0
,	Total	1,050.1	1,460.5	377.1	383.2
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks				

Category
Secondary
North Manila Secondary Road Improvement (3)

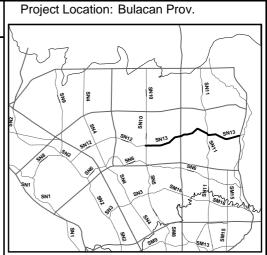
Description:



	Code	SN9	SN10	SN11	SN12
ı	tem	Wawa-San Jose Rd.	Prenza- Magasawang Sapa Rd.	Camarin Road Extension	Bocaue-Santa Maria Rd.
		8.5 km	12.0 km	14.0 km	7.5 km
Ą	gency	DPWH Region III	DPWH Region III	DPWH Region III	DPWH Region III
- · ·	Standard	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)	Secondary (4 lanes)
Project Type	Type of Work	Improvement	Improvement+New	Improvement+New	New
1 7 7 0	Status	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal	MMUTIS proposal
- · ·	Classification	National Road	National Road	National Road	
Existing Road	ROW (m)	6.0	6.0	6.0	N.A.
rtodd	Pavement	Concrete	Concrete	Concrete	
D lalla	Land Use	Rural Housing	Rural Housing	Rural Housing	Rural Housing
Roadside Condition	Density	Medium	Low	Medium	Medium
Condition	Squatter	Minimal	None	Minimal	Minimal
Environmer	ntal Constraints	Insignificant	Insignificant	Insignificant	Insignificant
ROW	Area (m²)	114,750	234,000	225,000	146,250
Acquisition	Difficulty	Not difficult	Not difficult	Not difficult	Not difficult
	ROW	114.8	234.0	225.0	146.3
Project Cost	Compensation	57.4	70.2	112.5	73.1
(PHPmil)	Construction	516.0 1)	1,836.0 2)	1,664.0 3)	732.0 4)
,	Total	688.1	2,140.2	2,001.5	951.4
Technical Issues for Construction		Insignificant	Insignificant	Insignificant	Insignificant
Re	marks	1) including 1 minor bridge	2) including 1 minor bridge	3) including 1 minor bridge	4) including 1 major bridge and 2 minor bridges

Category
Secondary
North Manila Secondary Road Improvement (4)

Description:

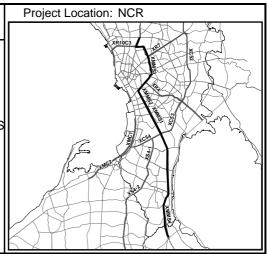


Code		SN13		
Item		Santa Maria- Sapangparay Rd.		
		12.0 km		
Agency		DPWH Region III		
Project Type	Standard	Secondary (4 lanes)		
	Type of Work	Improvement		
	Status	MMUTIS proposal		
Existing Road	Classification	National Road		
	ROW (m)	6.0		
	Pavement	Concrete		
Roadside Condition	Land Use	Rural Housing		
	Density	Medium		
	Squatter	Minimal		
Environmental Constraints		Insignificant		
ROW Acquisition	Area (m²)	162,000		
	Difficulty	Not difficult		
Project Cost (PHPmil)	ROW	162.0		
	Compensation	81.0		
	Construction	732.0		
	Total	975.0		
Technical Issues for Construction		Insignificant		
Remarks				

Category Metro Manila Skyway

Description:

The Metro Manila Skyway is the highest-priority road project with high economic impact. It will provide a vital link between Metro Manila and the regional growth centers in northern and nouthern Luzon. The first stage is on- going, and second and third are commited to the concessionaire. MMUTIS proposes to expand the southern portion up to San Pedro.



Code		XMMS1	XMMS2	XMMS3	XMMS4
Item		Buendia-Bicutan (Stage 1)	Quirino-Buendia, Bicutan-Alabang (Stage 2)	A. Bonifacio-SLE (Stage 3)	Alabang-San Pedro
		9.2 km	10.3 km	12.5 km	7.5 km
Agency		DPWH BOT-PMO	DPWH BOT-PMO	DPWH BOT-PMO	DPWH BOT-PMO
Project Type	Standard	Expressway (6 lanes	Expressway (6 lanes	Expressway (6 lanes	expresswaqy (6 lanes
	Type of Work	New	New	New	New
	Status	On-going	Committed (DPWH)	Committed (DPWH)	MMUTIS Proposal
Existing Road	Classification	Expressway	National Road	National Road	Expressway
	ROW (m)	50.0	30.0	30.0	50.0
	Pavement	Concrete	Concrete	Concrete	Concrete
Roadside Condition	Land Use	Industrial	Housing	Housing	Rural Housing
	Density	High	High	High	Low
	Squatter	Significant	Significant	Significant	Minimal
Environmental Constraints		Air Pollution	Air Pollution	Air Pollution	Air Pollution
ROW Acquisition	Area (m ²) Difficulty				
Project Cost (PHPmil)	ROW Compensation	5,520.0			
	Construction	14,480.0		17,824.0 1)	12,732.0
	Total	20,000.0	16,000.0	17,824.0	12,732.0
Technical Issues for Construction		Construcion on congested highway	Construction on congested highway	Construction on congested highway	Construction on congested highway
Remarks		Elevated Expressway	Elevated Expressway	1) MMUTIS Estimate	Elevated Expressway